

Bachelor of Science in Computer Engineering Model Study Plan (2022-2023 Cohort onwards)

For Students Admitted to the University from the Fall Semester
Total Degree Credit hours: 144

	Semester	Course Code	Course Title	Cr	Course type	Semester	Course Code	Course Title	Cr	Course type
Year-1	1 (Fall)	ENGG1000	Introduction to Academic English for Information Technology	3	Gen Ed Course Cluster 1: Area 2: English Communication	2 (Spring)	COMP2002	Discrete Mathematics & Logic	3	College Requirement
		ENGG1001	Calculus	3	Gen Ed Course Cluster 1: Area 2: Quantitative Reasoning		ENGG1010	Calculus	3	College Requirement
		COMP1100	Algorithms and Problem Solving	3	Gen Ed Course Cluster 1: Area 4: Critical Thinking		COMP1100	Object-Oriented Programming	3	College Requirement
		ENGG1002	General Physics Lab 1	3	Gen Ed Course Cluster 1: Area 3: Natural Sciences		ENGG1002	Software Design & Computer Organization	3	College Requirement
		ENGG1012	Engineering and Industrial Resilience	3	Gen Ed Course Cluster 1: Area 3: Fourth Industrial Revolution		COMP2101	Programming Lab 1	3	Specialization
Year-2	3 (Fall)	ENGG1003	General Physics Lab 2	3	Specialization	ENGG1003	Statistics	3	College Requirement	
		ENGG1004	Linear Algebra	3	Specialization	ENGG1005	Ordinary Differential Equations	3	Specialization	
		ENGG1006	Calculus	3	Specialization	ENGG1006	Calculus	3	Specialization	
		ENGG1007	General Physics Lab 3	3	Specialization	ENGG1008	Electronics Fundamentals	3	Specialization	
		ENGG1008	General Physics Lab 4	3	Specialization	ENGG1009	Electronics Fundamentals	3	Specialization	
Year-3	5 (Fall)	ENGG1009	General Physics Lab 5	3	Specialization	6 (Spring)	ENGG1010	Electronics Fundamentals	3	Specialization
		ENGG1010	General Physics Lab 6	3	Specialization		ENGG1011	Electronics Fundamentals	3	Specialization
		ENGG1011	General Physics Lab 7	3	Specialization		ENGG1012	Electronics Fundamentals	3	Specialization
		ENGG1012	General Physics Lab 8	3	Specialization		ENGG1013	Electronics Fundamentals	3	Specialization
		ENGG1013	General Physics Lab 9	3	Specialization		ENGG1014	Electronics Fundamentals	3	Specialization
Year-4	7 (Fall)	ENGG1014	General Physics Lab 10	3	Specialization	8 (Spring)	ENGG1015	Electronics Fundamentals	3	Specialization
		ENGG1015	General Physics Lab 11	3	Specialization		ENGG1016	Electronics Fundamentals	3	Specialization
		ENGG1016	General Physics Lab 12	3	Specialization		ENGG1017	Electronics Fundamentals	3	Specialization
		ENGG1017	General Physics Lab 13	3	Specialization		ENGG1018	Electronics Fundamentals	3	Specialization
		ENGG1018	General Physics Lab 14	3	Specialization		ENGG1019	Electronics Fundamentals	3	Specialization
Year-5	9 (Fall)	ENGG1019	General Physics Lab 15	3	Specialization					

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For Students Admitted to the University from the Spring Semester
Total Degree Credit hours: 144

Year	Semester	Course Title		CR	Course type		Semester	Course Title		CR	Course type	
		Code	Description		Code	Description		Code	Description			
Year 1	1 (Spring)	CPH2001	Introduction to Academic English for Information Technology	3	Gen Ed Course (Cluster 1: Area 2: English Communication)	CPH2002	Discrete Mathematics	3	College Requirement			
		CPH2002	Introduction to Academic English for Information Technology	3	Gen Ed Course (Cluster 1: Area 2: English Communication)	CPH2011	Calculus I	3	College Requirement			
		CPH212	Algebra and Problem Solving	3	Gen Ed Course (Cluster 1: Area 4: Critical Thinking)	CPH219	Object Oriented Programming	3	College Requirement			
		CPH213	Algebra and Problem Solving	3	Gen Ed Course (Cluster 1: Area 4: Critical Thinking)	CPH220	Object Oriented Programming	3	College Requirement			
		CPH212	Fourth Industrial Revolution	3	Gen Ed Course (Cluster 1: Area 2: Fourth Industrial Revolution)	CPH221	Programming Lab	3	College Requirement			
Year 2	3 (Spring)	CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
		CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
		CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
		CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
		CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
Year 3	5 (Spring)	CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
		CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
		CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
		CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
		CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
Year 4	7 (Spring)	CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
		CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
		CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
		CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			
		CPH235	General Physics Lab 1	1	Specialization	CPH235	General Physics Lab 1	1	Specialization			

Bachelor of Science in Computer Engineering Model Study Plan (2025-2026 Cohort onwards)

For Students Admitted to the University from the Fall Semester
Total Degree Credit hours: 131

Semester	Course Code	Course Title	CR	Course type	Semester	Course Code	Course Title	CR	Course type
Year 1	ENGL005	Academic English for Humanities and STEM	3	Specialization	2	COMP005	Discrete Mathematics	3	College Requirement
	ENGL005L	Laboratory	1	Specialization		COMP010	Calculus I	3	College Requirement
	CSBP120	Artificial Intelligence Problem Solving	3	General Education (S, Area 4: Critical Thinking)		COMP120	Object-Oriented Programming	3	College Requirement
	ENGL010	General Physics I	3	Specialization		COMP020	Computer Design & Computer Organization	3	College Requirement
	ENGL010L	Experimental Problems and Applications	3	Specialization		COMP225	Programming Lab II	3	Specialization
Year 2	ENGL210	General Physics Lab I	1	Specialization	4	ENGL040	Linear Algebra	3	Specialization
	ENGL220	Communications & Networks Fundamentals	3	Specialization		ENGL020	Ordinary Differential Equations	3	Specialization
	ENGL020L	Laboratory	1	Specialization		ENGL022	Computer Architecture	3	Specialization
	ENGL030	Calculus Lab	1	Specialization		ENGL220	Probability and Statistics	3	College Requirement
	ENGL040	General Physics II	3	Specialization		ENGL030	Discrete Structures	3	College Requirement
Year 3	CSBP130	Data Structures	3	College Requirement	(Spring)	ENGL040L	Laboratory	1	Specialization
	ENGL050	Computer Systems Structure	3	Specialization		ENGL050	Basic Biology / General Chemistry / Choose One	3	College Requirement
	ENGL050L	Computer Systems Structure	1	Specialization		ENGL050L	Laboratory	1	Specialization
	ENGL060	General History	3	General Education (S, Area 4: National History)		ENGL060	General Physics Lab II	1	Specialization
	ENGL060L	Laboratory	1	Specialization		ENGL060L	Laboratory	1	Specialization
Year 4	ENGL070	Security Principles & Practice	3	Specialization	6	ENGL070	General History	3	General Education (S, Area 4: National History)
	ENGL070L	Laboratory	1	Specialization		ENGL070L	Laboratory	1	Specialization
	ENGL080	Introduction to Embedded Systems	3	Specialization		ENGL080	General History	3	General Education (S, Area 4: National History)
	ENGL080L	Laboratory	1	Specialization		ENGL080L	Laboratory	1	Specialization
	ENGL090	Sustainability	3	General Education (S, Area 4: Sustainability)		ENGL090	General History	3	General Education (S, Area 4: National History)
Year 5	ENGL090L	Laboratory	1	Specialization	(Spring)	ENGL100	General History	3	General Education (S, Area 4: National History)
	ENGL100	Logic and Systems	3	Specialization		ENGL100L	Laboratory	1	Specialization
	ENGL100L	Laboratory	1	Specialization		ENGL110	General History	3	General Education (S, Area 4: National History)
	ENGL110	Networking Lab	3	Specialization		ENGL110L	Laboratory	1	Specialization
	ENGL110L	Laboratory	1	Specialization		ENGL120	General History	3	General Education (S, Area 4: National History)
Year 6	ENGL120	General History	3	General Education (S, Area 4: Sustainability)	8	ENGL120L	Laboratory	1	Specialization
	ENGL120L	Laboratory	1	Specialization		ENGL130	General History	3	General Education (S, Area 4: National History)
	ENGL130	General History	3	General Education (S, Area 4: National History)		ENGL130L	Laboratory	1	Specialization
	ENGL130L	Laboratory	1	Specialization		ENGL140	General History	3	General Education (S, Area 4: National History)
	ENGL140	General History	3	General Education (S, Area 4: National History)		ENGL140L	Laboratory	1	Specialization
Year 7	ENGL140L	Laboratory	1	Specialization	(Spring)	ENGL150	General History	3	General Education (S, Area 4: National History)
	ENGL150	General History	3	General Education (S, Area 4: National History)		ENGL150L	Laboratory	1	Specialization
	ENGL150L	Laboratory	1	Specialization		ENGL160	General History	3	General Education (S, Area 4: National History)
	ENGL160	General History	3	General Education (S, Area 4: National History)		ENGL160L	Laboratory	1	Specialization
	ENGL160L	Laboratory	1	Specialization		ENGL170	General History	3	General Education (S, Area 4: National History)
Year 8	ENGL170	General History	3	General Education (S, Area 4: National History)	(Spring)	ENGL170L	Laboratory	1	Specialization
	ENGL170L	Laboratory	1	Specialization		ENGL180	General History	3	General Education (S, Area 4: National History)
	ENGL180	General History	3	General Education (S, Area 4: National History)		ENGL180L	Laboratory	1	Specialization
	ENGL180L	Laboratory	1	Specialization		ENGL190	General History	3	General Education (S, Area 4: National History)
	ENGL190	General History	3	General Education (S, Area 4: National History)		ENGL190L	Laboratory	1	Specialization
Year 9	ENGL190L	Laboratory	1	Specialization	(Spring)	ENGL200	General History	3	General Education (S, Area 4: National History)
	ENGL200	General History	3	General Education (S, Area 4: National History)		ENGL200L	Laboratory	1	Specialization
	ENGL200L	Laboratory	1	Specialization		ENGL210	General History	3	General Education (S, Area 4: National History

Bachelor of Science in Bachelor of Science in Computer and AI Engineering Model Study Plan (2026-2027 Cohort onwards)
Concentration 1: AI Systems Engineering

For Students Admitted to the University from the Fall Semester
Total Degree Credit hours: 130

Semester	Course Code		Course Title	Cr	Course type		Semester	Course Code		Course Title	Cr	Course type	
	Elective	General			Elective	General		Elective	General				
Year 1	1 (Fall)	CEP001	Academic English for Nonnative and STEM	3	Gen. Ed. Theme 2: Academic Language Proficiency		2 (Spring)	CEP002	Discrete Mathematics	3	College Requirement		
		MA1011	Mathematical Foundations	3	MA1011-1	Calculus I		3	College Requirement				
		CEP113	English Writing and Problem Solving	2	Gen. Ed. Chapter 2: A Year 4, Critical Thinking			CEP113	Object-Oriented Programming	3	College Requirement		
		CEP114	English Writing and Problem Solving	2	Gen. Ed. Chapter 2: A Year 4, Critical Thinking			CEP114	Algorithms and Complex Organization	3	College Requirement		
		CEP115	English Writing and Problem Solving	2	Gen. Ed. Theme 3: Innovation			CEP115	Computer Algebra I	3	College Requirement		
Year 2	3 (Fall)	CEP120	General Physics Lab	2	Specialization		4 (Spring)	CEP120	General Physics Lab	2	Specialization		
		CEP121	Communications & Networks Fundamentals	3	Specialization			MA1012	Ordinary Differential Equations	3	Specialization		
		CEP122	Control Fundamentals	3	Specialization			CEP123	Computer Architecture	3	Specialization		
		CEP123	Systems Lab	3	Specialization			CEP125	Operating Systems Fundamentals	3	Specialization		
		CEP124	Special Topics I	3	Specialization			CEP126	Algorithm & Data Structure	3	Specialization		
Year 3	5 (Fall)	CEP127	Probability and Statistics	3	College Requirement		6 (Spring)	CEP127	Probability and Statistics	3	College Requirement		
		CEP128	Communications & Networks	3	Gen. Ed. Theme 1: UAE National Identity			CEP128	General Physics Lab	2	Specialization		
		CEP129	Communications & Networks	3	Specialization			CEP129	Mathematical Foundation for AI	3	Specialization		
		CEP131	Security Principles & Practice	3	Specialization			CEP132	Digital System Design	3	Specialization		
		CEP132	Automotive Systems Fundamentals and Applications	3	Specialization			CEP133	Circuit Design Lab	3	Specialization		
Year 4	7 (Fall)	CEP134	Networks Lab	3	Specialization		8 (Spring)	CEP134	Networks Lab	3	Specialization		
		CEP135	Autonomous Systems	3	Gen. Ed. Theme 3: Sustainability			CEP135	Introduction to Embedded Systems Lab	3	Specialization		
		CEP136	Sign and Systems I	3	Specialization			CEP136	Introduction to Embedded Systems Lab	3	Specialization		
		CEP137	Sign and Systems II	3	Specialization			CEP137	Advanced Robotics and Automation Technology	3	College Requirement		
		CEP138	Art in Design	3	Specialization			CEP138	Data Structures	3	College Requirement		
Year 5	9 (Fall)	CEP139	Advanced Systems Lab	3	Specialization		10 (Spring)	CEP139	Advanced Systems Lab	3	Specialization		
		CEP140	Advanced Systems Lab	3	Specialization			CEP140	Advanced Systems Lab	3	Specialization		
		CEP141	Advanced Systems Lab	3	Specialization			CEP141	Advanced Systems Lab	3	Specialization		
		CEP142	Advanced Systems Lab	3	Specialization			CEP142	Advanced Systems Lab	3	Specialization		
		CEP143	Advanced Systems Lab	3	Specialization			CEP143	Advanced Systems Lab	3	Specialization		

Bachelor of Science in Computer and AI Engineering Model Study Plan (2026-2027 Cohort onwards)

Concentration 2: Robotics and Autonomous Systems

For Students Admitted to the University from the Fall Semester

Total Degree Credit hours: 130

Semester	Course Code	Course Title	CR	Course type	Semester	Course Code	Course Title	CR	Course type
Year 1 (Fall)	UGS101	Academic English for Nonnative and STEM	3	Gen. Ed. Theme 2: Academic Language Proficiency	2 (Spring)	CNS120	Discrete Mathematics	3	College Requirement
	MA1010	Calculus	3	Specialization		MA1010	Calculus	3	College Requirement
	CMP110	Algorithms and Problem Solving	3	Gen Ed Course (Excluser 1: Area 4: Critical Thinking)		CMP110	Object Oriented Programming	3	College Requirement
	PHYS105	General Physics I	3	Specialization		CNS120	Digital Design & Computer Organization	3	College Requirement
	CNS110	Artificial Intelligence Fundamentals and Applications	3	Gen. Ed. Theme 3: Innovation		MA1040	Linear Algebra	3	Specialization
	PHYS105	General Physics Lab I	1	Specialization					
Year 2 (Fall)	PHYS105	General Physics Lab I	1	Specialization	4 (Spring)	MA1020	Ordinary Differential Equations	3	Specialization
	CNS120	Communication & Networks Fundamentals	3	Specialization		CNS121	Computer Architecture	3	Specialization
	CNS120	Computer Fundamentals	3	Specialization		CMP110	Operating System Fundamentals	3	Specialization
	CNS121	Control Lab	1	Specialization		CNS110	Applied AI for Computer Engineering	3	Specialization
	PHYS110	General Physics II	3	Specialization		BOC1002/CHM111	Basic Biology / General Chemistry / Choose One	3	College Requirement
	CNS110	Probability and Statistics	3	College Requirement		PHYS105	General Physics Lab II	1	Specialization
	CHM1110	Concomitancy Science Studies	3	Gen. Ed. Theme 1: UAE National Identity		CNS125	Mathematical Foundation for AI	3	Specialization
Year 3 (Fall)	ITBP101	Security Principles & Practice	3	Specialization	6 (Spring)	CNS124	Digital System Design	3	Specialization
	CNS140	Autonomous Systems Fundamentals and Applications	3	Specialization		CNS125	Digital Design Lab	3	Specialization
	CNS129	Networking Lab	1	Specialization		CNS128	Introduction to Embedded Systems	3	Specialization
	CNS129	Robotics	3	Gen. Ed. Theme 3: Sustainability		CNS129	Introduction to Embedded Systems Lab	3	Specialization
	CNS120	Signals and Systems I	3	Specialization		ITBP170	Professional Responsibility in Information Technology	2	College Requirement
	CNS141	Autonomous Systems Lab	3	Specialization		CMP110	Open Structures	3	College Requirement
	CNS141	Autonomous Systems Lab	3	Specialization		CNS140	Robotics Design and Applications	3	Specialization
Year 4 (Fall)	CNS140	Robotics Design and Applications	3	Specialization	8 (Spring)	ITBP411	Senior Capstone Project II	3	College Requirement
	ITBP110	Entrepreneurship and New Ventures Creation in IT	3	Gen. Ed. Theme 4: Entrepreneurship		CNS140	Robotics in Robotics and Autonomous Systems	3	Specialization
	ITBP400	Senior Capstone Project I	3	College Requirement		ITBP411	Senior Capstone Project I	3	College Requirement
	CNS140	Robotics Design and Applications	3	Specialization		ITBP411	Senior Capstone Project I	3	College Requirement
	ITBP411	Student choice	3	Gen. Ed. Theme 5 or 7 or 8 or 9 or 10 or 11		ITBP411	Senior Capstone Project I	3	College Requirement
Year 5 (Fall)	ITBP400	Internship	6						